



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,095	02/05/2004	John J. Hart III	ECD-0004CIP	3284
29344	7590	10/05/2006	EXAMINER	
MILLS & ONELLO LLP ELEVEN BEACON STREET SUITE 605 BOSTON, MA 02108			BIBBINS, LATANYA	
			ART UNIT	PAPER NUMBER
			2627	

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,095

Applicant(s)

HART ET AL.

Examiner

LaTanya Bibbins

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on February 5, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on July 8, 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. ***Claims 3, 6, 14, 16, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.***

Claim 3 recites the limitation "the optical path" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the first size of a physical deformation" in lines 3 and 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the optical path" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "the distortion" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the first size of a physical deformation" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. ***Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Lawandy et al. (US Patent Number 6,338,933 B1).***

Regarding claim 1, a method for modifying an optical medium, the medium having a plurality of operational characteristics, each operational characteristic having a predefined limit, comprising: selecting a region of the medium to be modified (column 5 lines 35, 36, 48, and 49); and modifying the medium in the region according to a predefined limit of a first of the plurality of operational characteristics (see column 6 lines 48 and 49 where the operational characteristics are the length and width of the pits); and modifying the medium in the region according to a predefined limit of a second of the plurality of operational characteristics (see column 6 lines 51-57 which discloses additional features of the data structures) such that during a read operation of data stored in the modified region, the read operation is altered in the modified region as a result of the modifications (column 6 lines 62-67 and column 7 lines 1-6).

Regarding claim 2, the method of claim 1 wherein modifying the medium comprises modifying the medium to have a distortion of a size that is approximately the

predefined limit of the operational characteristic for distortion size (column 6 lines 48 and 49).

Regarding claim 3, the method of claim 2 wherein the distortion is formed in a reading layer of the medium through which the optical path is directed (column 5 lines 47-52).

Regarding claim 4, the method of claim 2 wherein the distortion comprises an air bubble formed in the reading layer, a particle deposited in the reading layer, an indentation formed in an outer surface of the reading layer, or a convex feature formed in an outer surface of the reading layer (see the description of the data structures in column 6 lines 42-47 and Figure 2).

Regarding claim 5, the method of claim 2 wherein the distortion is formed in a reflective layer of the medium (see column 5 lines 42-47 and Figure 2).

Regarding claim 6, the method of claim 1 wherein modifying the medium comprises modifying the medium to have a distortion of a size that is approximately the predefined limit of the operational characteristic for distortion size and wherein the size of the distortion is based on the first size of a physical deformation and a second size of a local corresponding region of increased birefringence (see column 8 lines 47-54).

Regarding claim 7, the method of claim 1 wherein modifying the medium comprises modifying the medium to have adjacent distortions that are spaced apart by a length that is approximately the predefined limit of the operational characteristic for length between adjacent distortions (see the spacing of the distortions or pits/lands in Figures 2, 3A, 3B, 4A, 4B, 5A, and 5B).

Regarding claim 8, the method of claim 1 wherein modifying the medium comprises modifying the medium to have a region of increased birefringence (column 10 lines 12-18).

Regarding claim 9, the method of claim 1 wherein modifying the medium comprises modifying the medium to have a refraction index value that is approximately at the predefined limits of the operational characteristic for range of acceptable refraction index values (see column 8 lines 7-28).

Regarding claim 10, the method of claim 1 wherein modifying the medium comprises modifying the medium to have a reflection value that is approximately at the predefined limit of the operational characteristic for reflection value (see column 7 lines 7-14).

Regarding claim 11, the method of claim 1 wherein the selected region comprises a data region or a pre-track region of a medium (column 5 lines 35 and 36).

Claims 12-22 are drawn to the optical medium corresponding to the method of using as claimed in claims 1-11. Therefore, optical medium claims 12-22 corresponding to method claims 1-11, and are rejected for the same reasons of anticipation as used above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaTanya Bibbins whose telephone number is (571) 270-

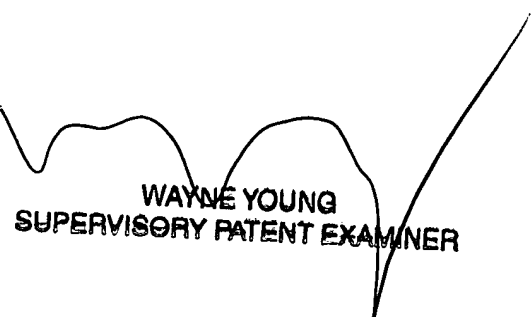
1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LaTanya Bibbins
Patent Examiner



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER